

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/004375

International filing date (day/month/year)
13.10.2004

Priority date (day/month/year)
07.11.2003

International Patent Classification (IPC) or both national classification and IPC
F16L33/01, F16L33/22, F16L27/08

Applicant
TRW SYSTEMS LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/004375

Box No. 1 Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/004375

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3,4,7,11,13,14
	No: Claims	1,2,5,6,8-10,12
Inventive step (IS)	Yes: Claims	
	No: Claims	1-14
Industrial applicability (IA)	Yes: Claims	1-14
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial
applicability; citations and explanations supporting such statement**

1. Reference is made to the following documents:
D1: US-A-3 776 996 (CAMERON J ET AL) 4 December 1973 (1973-12-04)
D2: DE 295 06 835 U (FRIEDHELM RAMSPOTT METALL UND) 13 July 1995
(1995-07-13)
2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.
 - 2.1 The document D1 discloses (the references in parentheses applying to this document): a hose (10) having a connector (see fig. 1 to 4) at an end portion thereof for (interpreted as "suitable for", see PCT Guidelines Part II, 5.23) providing a connection with a unit, the connector comprising a first moulded member (32) having an inner annular surface moulded to an outer annular surface of said end portion to provide a fluid-tight connection with the end portion, and a fastener (30) for fastening the connector to the unit.
 - 2.2 All the features of claim 1 are also known from D2.
3. Dependent claims 2 to 9 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, the reasons are the following.
 - 3.1 Concerning claims 2, 5, 6, 8 and 9: the additional features of these claims are known from D1, see e.g. col. 3, l. 6 to col. 4, l. 20 and fig. 4.
 - 3.2 Concerning claim 3: the subject-matter of this claim only differs from the hose disclosed in D2 (see e.g. fig. 9) in that the second member is moulded. The selection of the material for the second member appears to be however a mere matter of choice. The skilled person would select a moulded member during his routine design work without the need of an inventive activity, see e.g. D2, p. 14, l. 8 - 14.
 - 3.3 Concerning claims 4 and 7: the additional feature of each of these claims is merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to respectively ensure tightness between first and second member

and to connect a shower head to a shower unit, for claim 4 see e.g. D2, wherein seal 86 is another alternative solution.

- 3.4 It would be obvious to the skilled person to combine for the same purpose, in accordance with circumstances, the additional features of claims 2 to 9 with the known features of document D1, without the exercise of inventive skills, in order to solve the problem posed.
4. The subject-matter of claim 10 is not new in the sense of Article 33(2) PCT. The document D1 discloses (the references in parentheses applying to this document): a method of manufacturing a hose having a connector at an end portion thereof for providing a connection with a unit, the method comprising the steps of:
- inserting a core (14) inside a hose (10) end portion to support the hose end portion during moulding;
 - moulding a first moulded member (21) with an inner annular surface thereof moulded to an outer annular surface of said end portion;
 - withdrawing said core; and
 - positioning a fastener (12) at said end portion for fastening the connector to the unit.
5. Dependent claims 11 and 12 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, the reasons being as follows:
- 5.1 Concerning claim 11: it seems obvious to the skilled person to combine step by step, for the same purpose, in accordance with circumstances, the different stages of the manufacturing method of this claim, either known from the prior art (see in particular D1 and D2) or coming within the customary practice followed by persons skilled in the art, without the exercise of inventive skills, in order to superpose two successive moulded members on a hose end. Moreover the succession of these steps do not create unexpected effects.
- 5.2 Concerning claim 12: the additional feature of this claim is disclosed in D1 (see seal 31).
6. The subject-matter of claims 13 and 14 does not involve an inventive step in the sense of Article 33(3) PCT as it seems obvious to the skilled person to combine a

shower base unit, a shower head and hose features as in any of the claims 1 to 9, which are neither new nor inventive, without the use of inventive skills in order to arrive at a shower assembly as in claim 13 or 14 (the hose known from D2 is designed for shower units).

Re Item VII

Certain defects in the international application

1. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.

Re Item VIII

Certain observations on the international application

Although claims 1, 13, 14 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.